

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
19 December 2002 (19.12.2002)

PCT

(10) International Publication Number
WO 02/101673 A1

(51) International Patent Classification⁷: G07F 17/32 (74) Agents: GILSON, David, Grant et al.; Spoor and Fisher, PO Box 41312, 2024 Craighall (ZA).

(21) International Application Number: PCT/IB01/01029

(22) International Filing Date: 13 June 2001 (13.06.2001)

(25) Filing Language: English

(26) Publication Language: English

(71) *Applicant (for all designated States except US): WORLDRoulette (PTY) LTD [ZA/ZA]; Dunbrook Place, Corner of Nicholson & Duncan Streets, Brooklyn, 0181 Pretoria (ZA).*

(72) Inventors; and

(75) Inventors/Applicants (for US only): SMITH, Rudolph [ZA/ZA]; Fairview, Estate No. 18, Sanlam Street, Lynnwood, 0081 Pretoria (ZA). MACKERETH, Stuart, John, Andrew [ZA/ZA]; 20 Brigish Drive, Northcliff, 2115 Johannesburg (ZA). WOLFAARDT, Darryl, Joseph [ZA/ZA]; 23 Centurion Hills, South Road, Centurion, 0002 Pretoria (ZA).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU.

AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

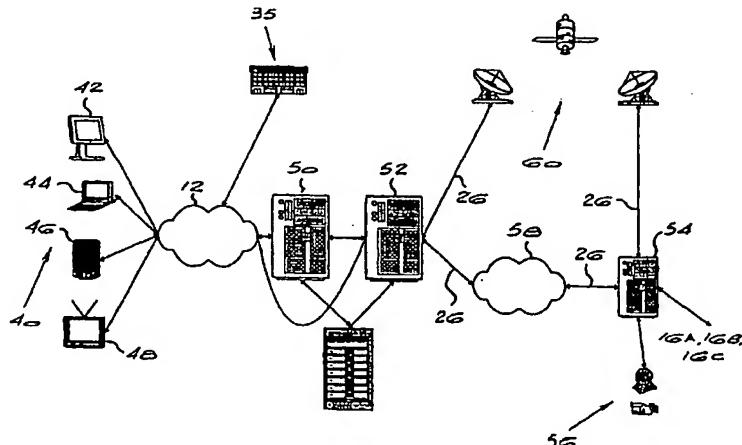
(84) **Designated States (regional):** ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: GAMING SYSTEM AND METHOD



WO 02/101673 A1

(57) Abstract: A gaming system (10) comprises a communications network (12) for allowing a plurality of users (14A, 14B, 14C, 14D) to access and place a bet or wager on one of a plurality of remote events (16A, 16B, 16C) and/or sub-event. The users (14A, 14B, 14C, 14D) are able to view the events (16A, 16B, 16C) and sub-events as a live, substantially real time image (26), at a gaming console, with the image (26) comprising video and/or audio data. The system (10) comprises an interface (20) with which the users (14A, 14B, 14C, 14D) interact. The interface (20) includes a Virtual Gaming Environment (VGE) component (22), which in turn is coupled to a plurality of rule configuration components (24A, 24B, 24C). The rule configuration components (24A, 24B, 24C) contain rules specific to the events (16A, 16B, 16C) respectively, as well as sub-rules relating to the sub-events of the events (16A, 16B, 16C). The rule components (24A, 24B, 24C), and in particular the sub-rules of sub-events, can be configured, amended and defined by the users (14A, 14B, 14C) or by an independent sponsor or an administrator of the system (10).

games that are casino based. This is restrictive, in that a user is casino-bound, with the result that the user is unable to gamble on an event that is external to the casino.

A further prior art reference is US patent no. 5,800,268 to Molnick, which provides a method of participating in a live casino game from a remote location. As with the Vuong reference described above, this invention provides for a live image of the game being played to be transmitted to the user. However, this invention is relatively limited in its application in that it appears as if every user's move has to be physically carried out on the actual physical game. Consequently, the number of user's that can participate in this game is limited to the number of physically empty spaces in the casino.

Thus, it would be desirable to allow a plurality of users to bet on an event and/or a user-defined sub-event whilst viewing the actual event and/or sub-event in real-time, without any interaction between the user and the actual event.

SUMMARY OF THE INVENTION

According to a first aspect of the invention there is provided a gaming system for allowing a plurality of users to place a wager on at least one of a plurality of remote events and/or sub-events, wherein each event comprises at least one sub-event, with the outcome of the event being determined by a pre-defined set of rules and the outcome of the sub-event being determined by a set of sub-rules, the system comprising:

control means;

a first communications network for allowing the control means to communicate with the plurality of users;

Conveniently, the game display means is arranged to display a graphical representation of the sub-event to facilitate the placing of wagers.

In one form of the invention, the event takes place at a remote casino, with the event being selected from a group comprising roulette, craps and blackjack. Alternatively, the event takes place at a remote sporting venue and the event is selected from a group comprising a game of soccer, a boxing match and horse racing.

Preferably, the gaming system includes a plurality of rule configuration components that contain rules specific to the events and sub-rules relating to the sub-events.

According to a second aspect of the invention there is provided a gaming method for allowing a plurality of users to place a wager on at least one of a plurality of remote events and/or sub-events, wherein each event comprises at least one sub-event, with the outcome of the event being determined by a pre-defined set of rules and the outcome of the sub-event being determined by a set of sub-rules, the method comprising the steps of:

transmitting from a remote location a live image of the plurality of events and/or sub-events;

selecting an event and/or a sub-event on which the user wishes to place a bet;

generating odds for the selected event and/or sub-event;

accepting a wager from the user;

determining the outcome of the event and/or sub-event; and

notifying the user as to whether he or she has won the wager or not.

connection or via a telephone or cellular network, or a public or private communications network.

The term "event" is meant to include, but not be limited to, any type of casino game, such as roulette, craps and blackjack, as well as a sporting event, such as a game of soccer, a boxing match and horse racing. In fact, the gaming system 10 can be used to allow a user 14A, 14B, 14C and 14D to bet on the outcome of any event. Significantly, the term "event" is also used to cover a sub-event i.e. a part or portion of a main event. As an example, an event could be a boxing match, but a sub-event could be the score after Round 1 of the same boxing match.

The system 10 comprises an interface 20 with which the users 14A, 14B, 14C and 14D interact, the interface 20 including a Virtual Gaming Environment (VGE) component 22, which in turn is coupled to a plurality of rule configuration components 24A, 24B and 24C. The rule configuration components 24A, 24B and 24C contain rules specific to the events 16A, 16B and 16C respectively, as well as sub-rules relating to sub-events of the events 16A, 16B and 16C.

Significantly, the rule components 24A, 24B and 24C, and in particular the sub-rules of sub-events, can be configured, amended and defined by the users 14A, 14B and 14C or by an independent sponsor or an administrator of the system.

In one embodiment, the sub-rules are left to the discretion of the users of the system, wherein each user defines his or her own criteria outcome for a certain sub-event, and places a wager on that user-specified outcome. Other users may also decide to bet on the user-specified outcome. In this case, the odds and payouts are determined by whether the event and/or sub-event occurs or not, with the amount wagered by the users being pooled for that specific event and/or sub-event. For example, if the event were a game of soccer being viewed by the users, a user could define a sub-rule such as the outcome of who wins the match e.g. whether team X

shows in round three of a game of black jack, or if boxer A scores more points than boxer B in round 4. Clearly, broader sub-events could also be defined, such as which player in the casino will have the biggest winnings on the night, or whether it rains on boxing night or not. The granularity depends on the ability of the casino, race-course, or whoever the owner and administrator of the gambling system is, to verify the outcome of the events and/or sub-events.

The actual events 16A, 16B and 16C are transmitted as live images 26, in real time, to the users 14A, 14B, 14C and 14D, with the images comprising video and/or audio data of the live event.

Turning now to Figure 2, the gaming system 10 includes a user interface 28 that comprises a user console 30, a video viewing screen 32, for allowing the user to view the live images 26, and a gaming console 34. The user console 30 allows a user to:

1. Access the gaming system 10;
2. Create his or her demographic and credit profiles. Typically, once a user has connected to the gaming system, he or she will be able to create a personal account on the system, load banking and/or credit details, as well as other demographic details such as address, passwords, limits of credit which the user may require, and so forth.
3. Set gambling amount limits; and
4. Check, verify and authorise credit facilities, by, for example, linking to a global e-commerce credit settlement and processing service provider 35.

The above steps must be done and confirmed prior to the user being able to bet on events, but they are configurable, so that they can be modified and updated on an ad-hoc basis thereafter.

relevant graphical representation for the gaming console 34, if applicable. A session is a specific connection between the user and the gaming web site 36, which lasts as long as the user is connected to the site. Session maintenance is managed by the web server. The web site 36 is also responsible for transmitting the live images 26 to the user interface 28.

Alternatively, it is envisaged that the user need not necessarily require a browser, with rather a client-server model, which a forms-based front end, being installed on the user's device, and using one of the above communication protocols to communicate with the gaming web site 36.

Game unit plug-ins 38A, 38B and 38C are either pre-installed or downloaded from the gaming web site 36. These plug-ins 38A, 38B and 38C are used to capture and display the graphics for the playing console 30; the graphics being specific to the event on which the user wishes to place a wager. Plug-ins 38A, 38B and 38C will graphically represent the rules and sub-rules encapsulated and defined in plug-in 24A, 24B and 24C respectively.

Figure 3 shows another preferred embodiment of the gaming system 10 in which components similar to those described above with reference to Figure 2 have been identified with similar reference numerals. In this version of the invention, the playing console 30, the gaming console 34, and its associated game unit plug-ins 38A, 38B and 38C, and the live images are hosted on the gaming web site 36. This advantageously allows for different types of user devices 40, such as, and with reference to Figure 4, a traditional computer or workstation 42, a handheld device 44 such as a consumer electronic device, Web terminal, Internet access appliance, mobile data acquisition handheld, or embedded communication device, operated by an embedded operating system like Microsoft Window CE, a PDA personal assistant 46 and a web TV 48. The device 40 may also take the form of a cellular telephone, and in particular a WAP-enabled telephone for allowing the user to access the gaming web site 36, which is hosted on a web server 50 and/or a gaming server 52.

Progressive betting is useful when the event is not a single discrete indivisible event, but may be spread over time. In this case, it may be desirable to allow betting to continue during the event execution itself. For example, the rule of who wins or loses a boxing match, may allow for additional betting and changing of odds after each round of the match.

In another example, the event may be the result of who wins a marathon race. In this case, there are no discrete units within the event to re-evaluate bets and odds, and users may bet continuously until the end of the event, with the odds changing in real-time during the event execution.

In other cases, such as betting on the outcome of a horse-race, it is not appropriate to allow for progressive betting, rather to freeze all bets prior to the start of the race. The rule configuration components 24A, 24B and 24C are sufficiently flexible to allow for defining such parameters for the event and sub-events.

The status controller 62 is also responsible for auditing and recording each detail of every game unit into a historical log of all system events that can be tracked, monitored and reviewed.

The system 10 includes a user database 65 that houses all the user's statistics, preferences, credit and banking details, and the like, as well as his user name and password for allowing access to the system 10. The user database 65 also keeps track of the winnings and losses for that user, and stores and retrieves this information, as with the other information, as required by the status controller 62.

In Figures 2 and 3, an image stream transmission controller 66 manages the transmission of the video and audio streaming sources, obtained via the devices 56, to the user. The video and audio data stream may be transmitted either directly to the user's device, indicated by stream feed 68, or via the gaming web site 36 itself, as indicated by stream feed 70. The nature of the live image stream 26 depends on the type of event being

As mentioned, the outcome interface 72 is used to synchronise all the components of the system. This is because all betting is time critical to the actual timing of the event itself. It is important that start and stop signals as well as outcomes are done exactly at the right time to ensure that betting is valid. In some embodiments of the system, where the event is over a protracted period of time, for example, betting on the outcome of a lengthy event such as the Tour de France cycling event, where the rules dictate the outcome being the winner of the event, then synchronization is less of an issue, especially if betting stops before the race begins. If the events are individual games of roulette being played at a casino, then synchronization is critical, as the system needs to know exactly upon which event all players are betting, and the outcomes of each event as they occur, even if potentially hundreds of events occur per hour, or per minute.

The level of efficiency of the synchronization will be related to the ability of the outcome interface 72 to communicate even states such as start betting, stop betting, start event, stop event, and outcome, to the status controller 62.

The outcome interface 72 includes an electronic interface, for allowing remote electronic event notification systems to connect to it, by means of link 76. For example, in a casino where a game management system already exists, for tracking the events and outcomes of casino games, the management system can interface directly with the outcome interface 72. For other type of events, this electronic interface may not exist, and must either be provided by the event owners or a manual interface will be provided in order to manually capture the changing status of the event. In this embodiment, there would need to be a physical person watching the event, either at the place of the event, or remotely from the event, who would manually record and capture the status changes into an interface. Typically this would be through a windowed or internet browser environment on a PC or workstation.

the pool, and the system no longer is merely an extension of the existing casino, and the casino does not need to underwrite the risk of the game units.

In the circumstance where the user is allowed to define and customise rules for the event, the gaming console 38, will be structured in such a way that the user can define events and sub-events from the gaming console by using parameters and filters and options which will enable the user to define a sub-event. It is also possible, that the user can define a free-text rule which other users can see and evaluate themselves as to whether they wish to bet or not on that rule or sub-rule. In this way irrespective of the type of rule on the event, or sub-rule on the sub-event, the users themselves by choosing whether to participate and bet on the outcome, will automatically be determined by the system according to the pool of bets, and any additional sponsorship bet that may be placed by a sponsor.

In other circumstances, where the event is a predefined game, like roulette, or craps, the user will not have a customizable event/rule template to create new betting scenarios within the event, but will rather just be able to see a graphical image of the type of event game through the gaming console 38, with, for example, a picture of a roulette table, with forms and capture fields for capturing betting information. In addition, the video display of the event will be presented with the gaming console 38 for verification and confirmation of event outcomes. In this case, the rules captured in the rule engine in the Plug-ins 24, will be done in advance by the administrators of the system. The rule engine interface may be customizable to cater for any event, or may require specific development and programming to cater for more complex events.

The present invention thus provides a Virtual Gambling Environment (VGE) for allowing a plurality of users, punters or players to bet or wager, remotely via a suitable communications network, on the outcome of an event and, in particular, on a sub-event. The event is transmitted as a live, real time event for allowing a user to visually the outcome of the event. The VGE is

CLAIMS

1. A gaming system for allowing a plurality of users to place a wager on at least one of a plurality of remote events and/or sub-events, wherein each event comprises at least one sub-event, with the outcome of the event being determined by a pre-defined set of rules and the outcome of the sub-event being determined by a set of sub-rules, the system comprising:

control means;

a first communications network for allowing the control means to communicate with the plurality of users;

a second communications network for allowing the control means to receive a live image of the plurality of events and/or sub-events;

funds acceptance means for accepting funds from the user;

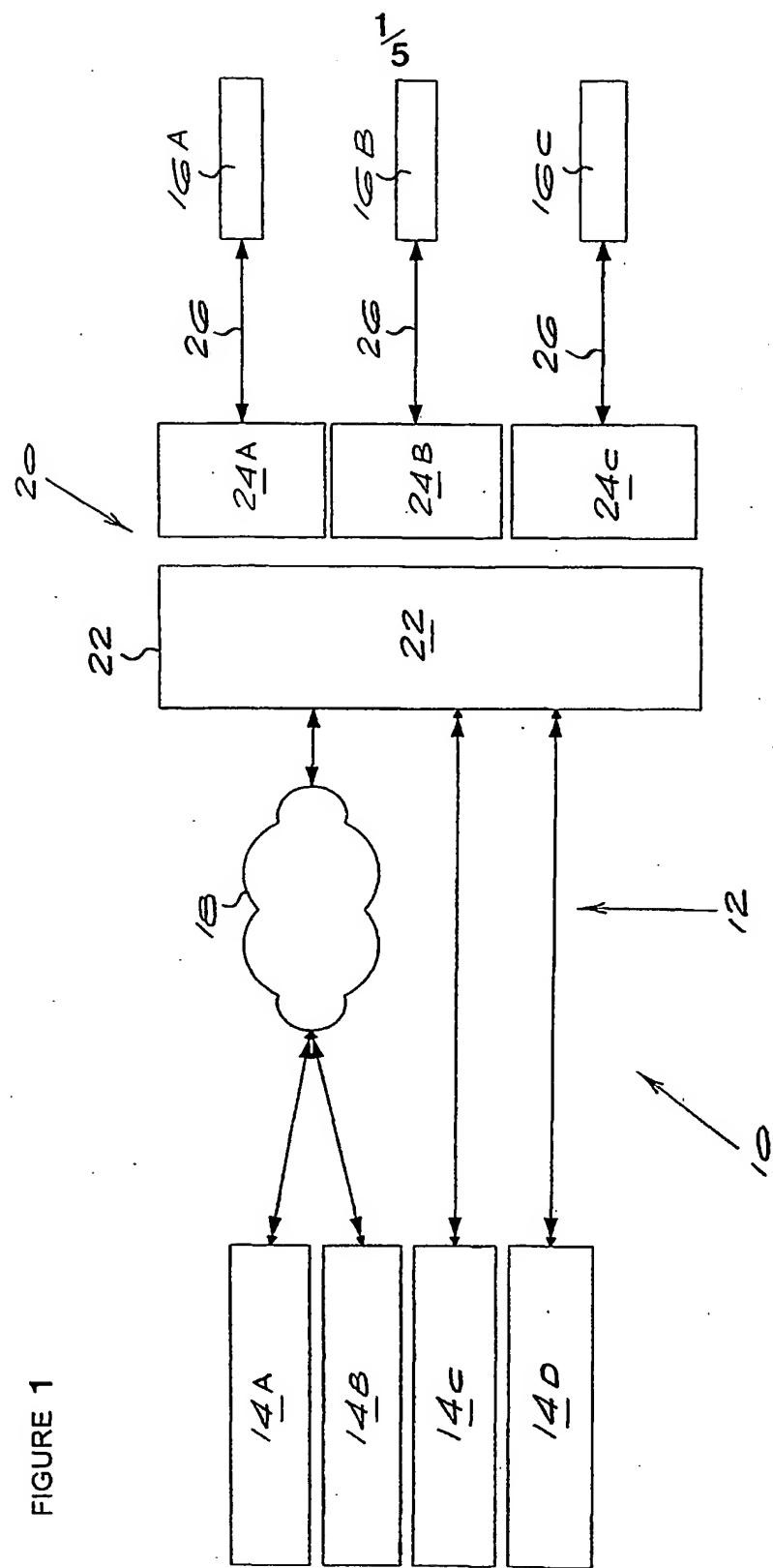
an event selecting means for allowing the user to select an event on which he or she wishes to place a bet;

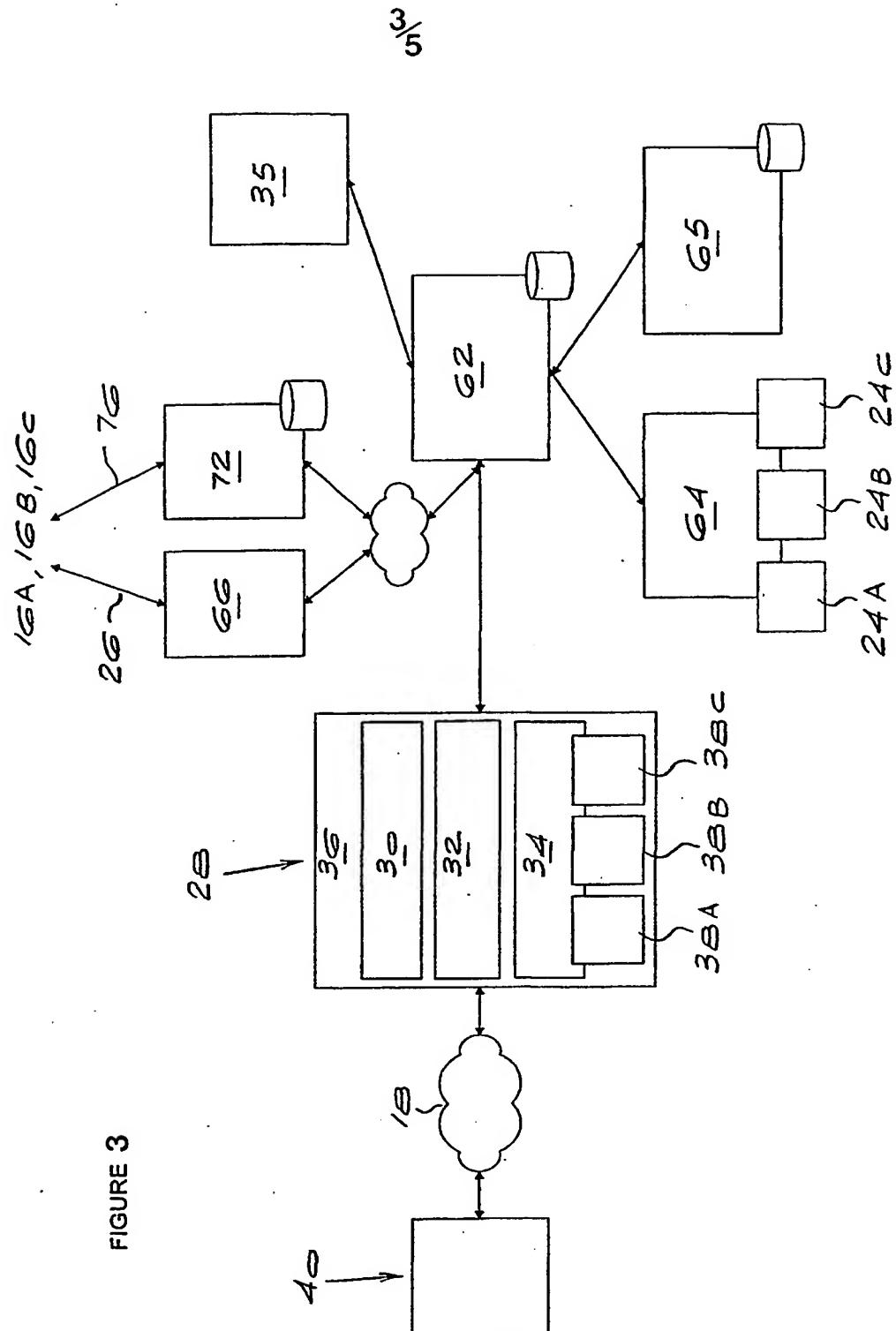
sub-event defining means for allowing the sub-rules governing the sub-event on which the user wishes to place a bet to be defined;

odds generating means for generating odds for the selected event and/or sub-event;

wager placing means for allowing the user to place a wager on the event and/or sub-event; and

8. A gaming system according to claim 7 wherein each user can view the sub-rules defined by other users.
9. A gaming system according to claim 8 wherein each user can place a wager on a sub-event specified by another user's sub-rules, with the amount wagered by the users being pooled.
10. A gaming system according to any one of the preceding claims wherein the odds generating means generates odds before an event and/or sub-event commences.
11. A gaming system according to any one of claims 1 to 9 wherein the odds generating means generates odds during an event and/or sub-event to allow for progressive betting.
12. A gaming system according to any one of the preceding claims in which the sub-event defining means includes a plurality of rule configuration components that comprise the rules specific to the events and the sub-rules relating to the sub-events.
13. A gaming system according to any one of the preceding claims wherein the sub-rules are defined by the user.
14. A gaming system according to any one of claims 1 to 12 wherein the sub-rules are defined by a third party, the third party including an independent sponsor and an administrator of the gaming system.
15. A gaming system according to any one of the preceding claims wherein the event and/or sub-event takes place at a remote casino, with the event being selected from a group comprising roulette, craps and blackjack.
16. A gaming system according to any one of claims 1 to 14 wherein the event and/or sub-event takes place at a remote sporting venue,





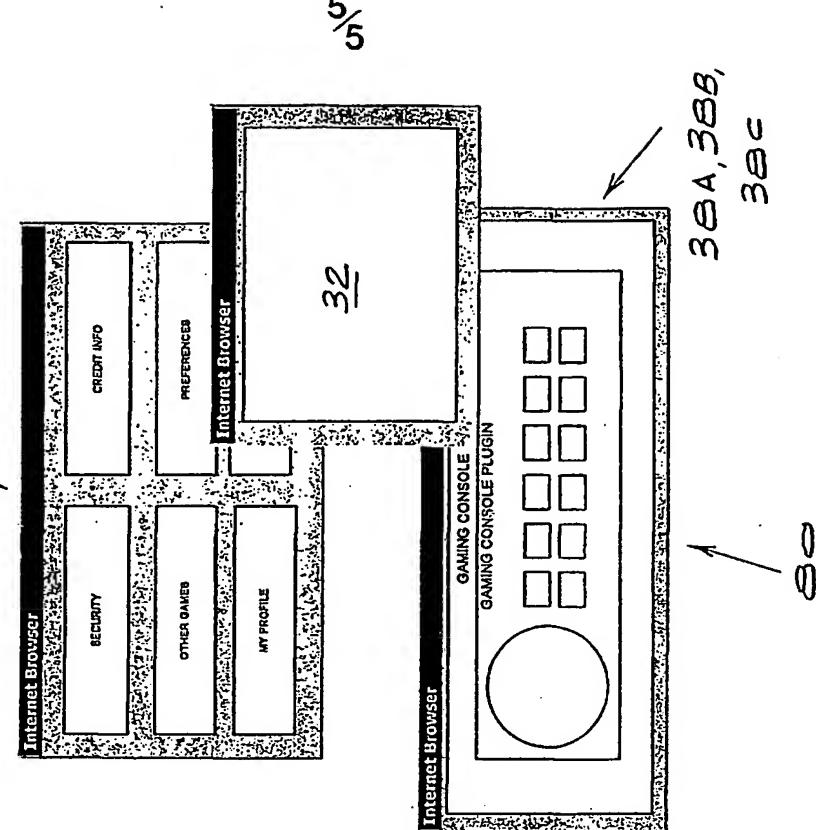
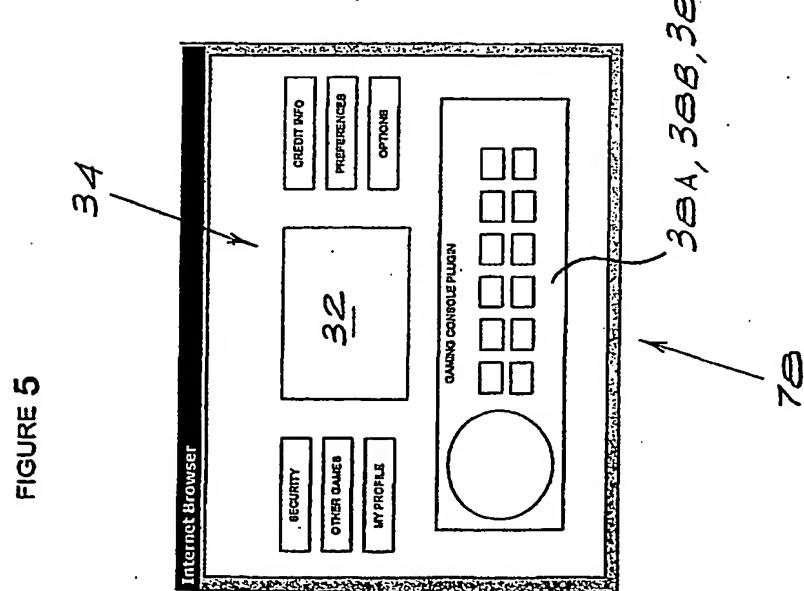


FIGURE 5

INTERNATIONAL SEARCH REPORT

International Application No
PCT/IB 01/01029

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 620 688 A (NEWS DATACOM LTD.) 19 October 1994 (1994-10-19)	17-19
Y	column 7, line 35 -column 10, line 27 column 11, line 42 -column 12, line 14; figures 1,2,4A,35 ---	6,15,19
X	WO 00 67215 A (STRONACH) 9 November 2000 (2000-11-09)	17-19
A	page 6, line 15 -page 7, line 2; figures 1,2 -----	1-16

Form PCT/ISA/210 (continuation of second sheet) (July 1992)